

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Stanley C. Johnson

Serial No.: 09/903,795

Group No.: 1772

Filed: July 11, 2001

Examiner: Jane J. Rhee

For: **WOOD PRODUCT HAVING A COMPOSITE SUBSTRATE COVERED
WITH PAPER**

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Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF STANLEY C. JOHNSON UNDER 37 CFR 1.132

I, Stanley C. Johnson, declare as follows:

1. I am the inventor of the subject matter of the above-referenced US patent application.
2. I am employed as Senior Production Engineer for Laminated Veneer Lumber (LVL) and as Quality Assurance Director for LVL by Pacific Wood Laminates, Inc. (PWL), based in Brookings, Oregon, which is the assignee of this patent application. PWL manufactures, among other things, engineered wood products that are alternatives to traditional millwork.
3. PWL manufactures and sells—typically to distributors of building materials—fascia, soffits, and trim (which I will collectively refer to as *trim*). Starting about 1995, PWL made and sold trim using the process described in this patent application on page 1, line 20, through page 2, line 8, namely laminated veneer lumber (LVL) having paper applied to a face surface and having a sanded and filled edge (“the old PWL product”). This is the same general approach disclosed in US Patent No. 5,071,688 to Hoffman, which was relied on during the examination of this application to reject claims. As far as I know, a product made pursuant to Hoffman and the old PWL product are the only laminated trim products that have sanded and filled edges.

4. The problems associated with using laminated wood products as exterior trim are recognized in the Hoffman patent: "failure to give the appearance that the trim was a solid wood product, particularly as to the edges . . . This disadvantage when considered along with the fact that the plywood trim from a maintenance standard was no better, if not worse, than the solid wood trims led to a rejection of the plywood trim product." Hoffman, Col. 1, line 34 *et seq.*

5. Although Hoffman recognizes both the maintenance problems and the appearance problem, it vastly understates the extent of the maintenance problems. In response to customer complaints about the old PWL product, PWL has had to issue technical bulletins and dispense repair kits, and pay numerous costly claims as a result of weather degradation of the old PWL product after it was sold and installed.

6. First, concerning complaints, PWL received a barrage of annual complaints about the installed old PWL product every spring and into the summer months, which coincides with the time for a lot of building exterior maintenance. These complaints began when the product was first sold in 1995 and typically come at the rate of more than one per week during the peak of the season. The typical complaint was that the edges were cracked, which the customer perceived as glue line delamination. Almost always, however, the problem was that the edges had swollen and some of the veneers had split. These complaints were resolved in one of three ways: PWL issued epoxy repair kits with instructions; the customer accepted that this was a natural result of weathering, or the customer removed the material from the building.

7. Second, concerning the technical bulletin, attached as Exhibit A is a document captioned TECHNICAL NOTE that bears a revision date of April 1998, the date that the revision was issued. There were earlier notes dealing with repair of the old PWL product after it was installed, but this was the earliest I could find. Although stated in language as palatable as possible to the purchaser, it speaks to the fact that the product degrades both in appearance and useful life as a result of weathering.

7. Third, PWL has issued the epoxy repair kits with instructions referred to in paragraph 6 an average of about one every 2 months for the past 8 years.

8. Fourth, some of the complaints referred to in paragraph 6 resulted in claims for damages made against PWL. I estimate that from 1994 to date, PWL has paid approximately \$30,000 per year to settle these claims.

9. The attached Exhibits B and C depict the weather degradation problems associated with the old PWL product described above, and the attached Exhibits D and E depict the same weather exposure to product constructed in accordance with the invention. These exhibits are photos of the exterior of my office building in Brookings, Oregon, that I took on August 24, 2003. This building was built in November 2002. These exhibits show two different exterior trim pieces that were installed on this building. The trim shown in Exhibit B and Exhibit C, which is a close up of view of the trim shown in Exhibit B, is the old PWL product, and the trim shown in Exhibits D and Exhibit E, which is a close up view of the trim shown in Exhibit D, was manufactured in accordance with the invention claimed in this application.

10. You can see that the edge of the old PWL product does not present the same smart appearance as the new product (in Exhibits D and E) and that weather degradation is already underway, as reflected by the rough line of cross-grained wood in the upper right side to the trim in Exhibit C. This characteristic may be present, yet subtle at the time of manufacture but becomes much more pronounced over time. These photos clearly depict one type of degradation that resulted in the problems described in paragraphs 5 through 8 above.

11. I became a PWL employee in 1994, and I have been working on various techniques for improving the old PWL product—and dealing with the quality problems it presented—since then. Following is a summary by year of my work to address the problems associated with the old PWL product.

12. 1995: I worked with a company to chemically graft a polyurethane polymer to the edge of the old PWL product. This was unsuccessful because the edge coating was too rigid; it cracked when the wood swelled. I also worked with a company to extrude an acrylic filler material on the edge. This was unsuccessful because the material was not durable enough to meet our needs.

13. 1996: I concentrated on liquid (sprayable) acrylics and application processes. Although this work resulted in improved edge performance, the problems described above persisted.

14. 1997: I worked with a company to extrude highly filled polyurethane onto the edge. This was unsuccessful because paint primers and topcoats did not adhere to it. Also, the cost of manufacturing was prohibitive.

15. 1998: I worked with a variety of new primers and fillers. I also performed a study that involved gluing an MDO paper to the edge of the old PWL product.

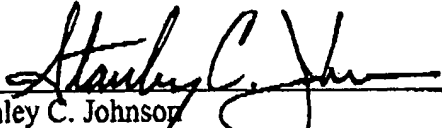
16. 1999: I worked with a company to apply liquid polyurethane directly on the edge. There was no equipment nor was there any design for one that could be used to manufacture this product in quantities PWL needed. I also worked with a company to extrude polyurethane hot melt directly to the edge of the old PWL product. This was unsuccessful due to carbon dioxide gassing off that resulted in the formation of bubbles in the film that were not acceptable. I also worked with a company to apply polyvinyl acetate adhesive directly to the edge of the old PWL product. This did not succeed because the material was brittle and cracked when the wood swelled. I also worked with a company to apply polyurea directly on the edge of the old PWL product. This was unsuccessful due to severe overspray that resulted in substantial waste. I also worked with a company to apply 3 different types of ultraviolet curable material directly to the edge of the old PWL product. This approach did not work because the material was extremely rigid and its durability was questionable.

17. 2000: I worked with a company to apply a powdered coating directly to the edge of the old PWL product. This didn't work because it was brittle and costly. I worked with a company to extrude waterproof epoxy resin directly on the edge of the old PWL product. This also was too rigid, producing cracking when the wood swelled.

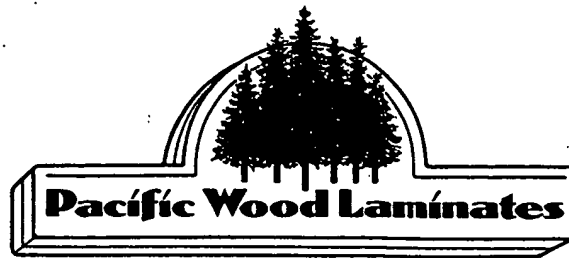
18. Attached as Exhibit F is a photo of 2 pieces of trim that I understand were manufactured by a company called Veneer Profiles, based in White City, Oregon. It is made of LVL with a resin treated paper wrapped on three sides and glued to the LVL substrate with polyurethane hot melt glue. It is intended for use as exterior trim. The samples in the photograph were given to PWL by one of PWL's customers. The sample on the left is degraded because it failed some tests that PWL ran on it. As far as I know, this sample was introduced to the market after PWL's new trim product, and it copies our new trim product, but it is of inferior quality.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States

Code and that such willful false statements may jeopardize the validity of any patent issued from this application.


Stanley C. Johnson

10/22/03
Date



P.O.Box 820 819 RAILROAD AVE. BROOKINGS, OR 97415 PH (541)469-4177 FX (541) 469-6153

TECHNICAL NOTE

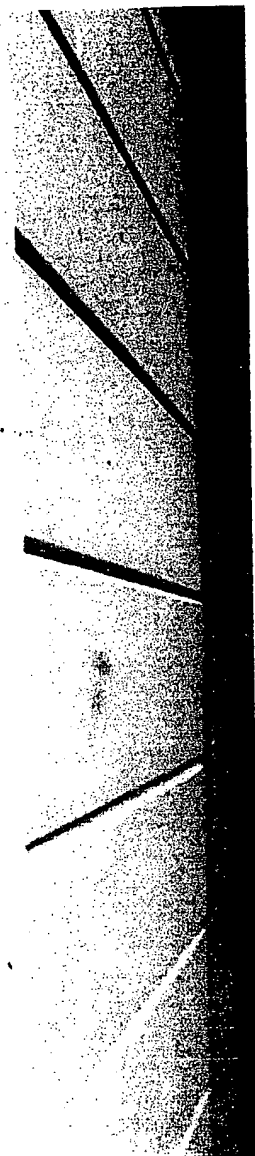
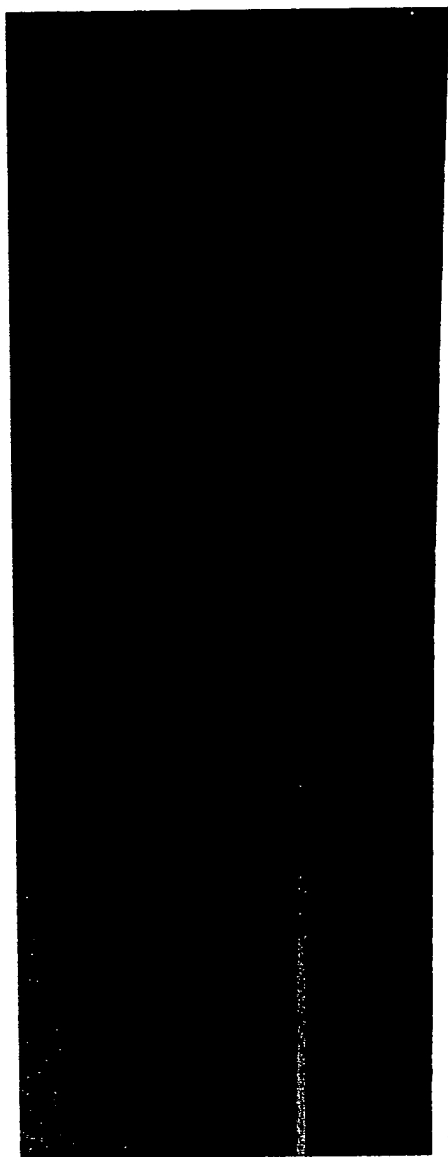
RE: REPAIR OF LOCALIZED MDO DELAMINATION ON CLEAR LAM® PRODUCTS

On rare occasions the MDO paper may become disbonded and appear as a small bubble on the surface. Typically, this occurs shortly after the Clear Lam® has been installed. In most instances, the best approach is to repair the affected area using a technique that has been found to provide for a durable, aesthetic finish. Please note that observation of an area that requires repair is not an indication that other areas will require repair in the future.

The procedure for a permanent repair is as follows:

- With a putty knife, remove the disbonded MDO to the point where the bond is intact.
- Mix a small batch of epoxy, one part E800-A to one part E800-B.
- Apply the epoxy patch to the affected area with a putty knife.
- Allow the material to harden for one hour. Sand smooth but leave as much patch as possible.
- Re-prime and topcoat.

Rev 04.98



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DECLARATION OF BILL SANREGRET UNDER 37 CFR 1.132

I, Bill Sanregret, declare as follows:

1. I am employed by Capital Lumber Company (CLC) as an Outside Salesman in CLC's Healdsburg, California office. I have been employed at CLC since 1995.
2. CLC purchases engineered lumber products—including CLEAR LAM[®] fascia, soffits, and trim—from Pacific Wood Laminates, Inc. (PWL) of Brookings, Oregon, which I understand is the owner of the patent application identified above. CLC has purchased this product from PWL since 1996.
3. CLC sells these products, typically to retail lumberyards that in turn sell to building contractors. CLC has sold the old-style CLEAR LAM[®] products, which include an exposed edge that is sanded and filled, since around 1996. CLC currently has several hundred thousand dollars worth of the old-style CLEAR LAM[®] products in its inventory.
4. Since at least 1997, I have received numerous complaints about the exposed edge of the old product, particularly about the poor quality of the edge seal.
5. Some of our customers refused to buy the old-style product because the edges are quickly subject to weather damage. But about 18 customers that would not buy the old-style

product due to these concerns are currently purchasing the new product, in which paper extends from the face of the product around the edge to the back, thereby wrapping and sealing the edge.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of any patent issued from this application.


Bill Sanregret

10-21-03
Date

-----Original Message-----

From: JFWalsh@aol.com [mailto:JFWalsh@aol.com]

Sent: Friday, May 24, 2002 9:37 AM

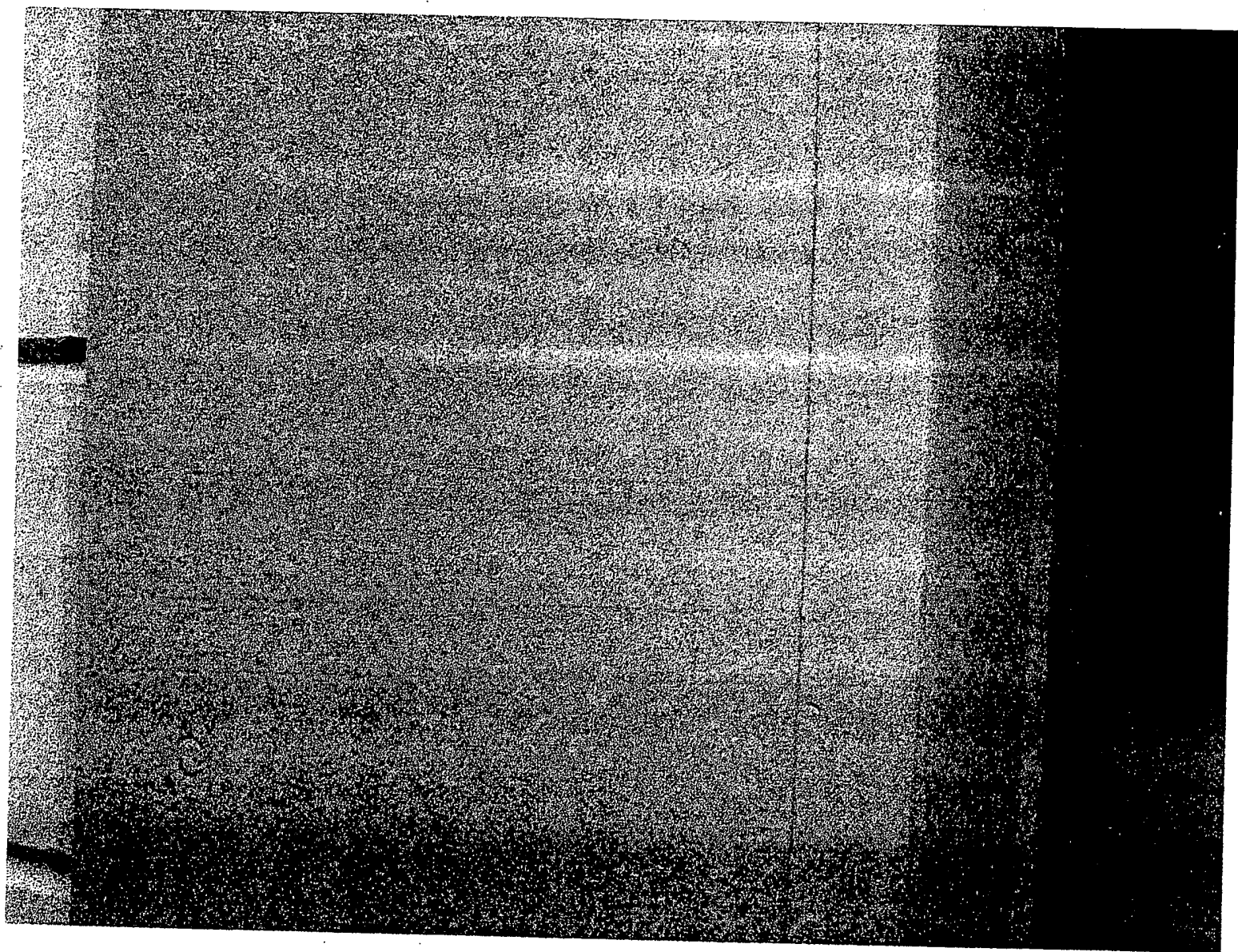
To: Ken Caylor

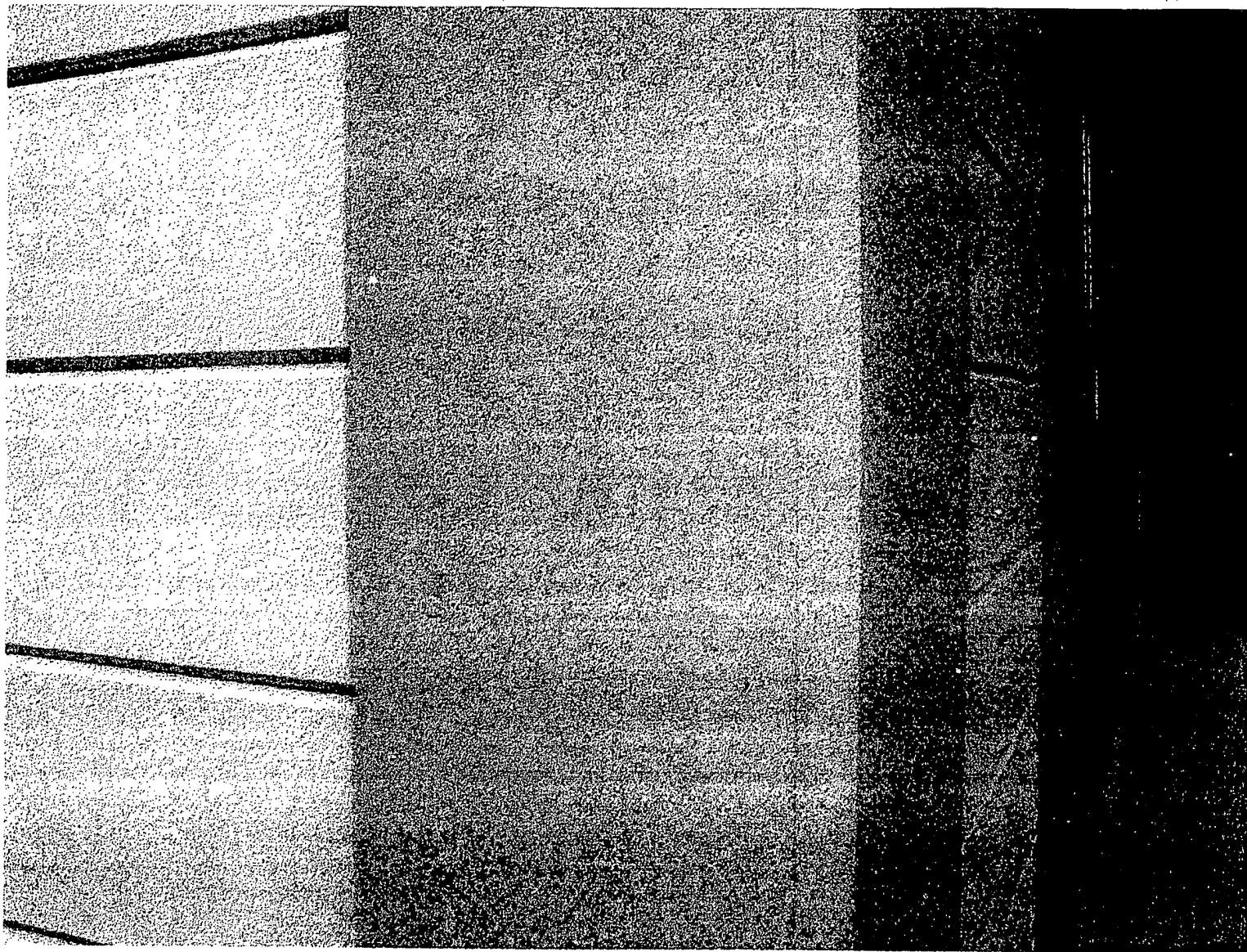
Subject: Clear-Lam wrapped edge

Dear Ken,

As you are aware we have been selling the clear-lam product for several years in the Northeast market with some success. As I travel the area some of my best customers are interested in the program but are concerned about the edge. Ken I have three of my best customers that are ready to buy the program but only if the edge is wrapped. Personally I think this program will take off once we can buy the wrapped edge. One of my best customers, Hingham Lumber, is in the process of building a new lumber yard. They were so close to using the clear-lam on the building but the owner squashed the idea because the edge was not wrapped. The purchasing agent at Hingham Lumber, Mike MacCune used clear-lam on his own house and is the biggest fan of the product but the owner won't allow him to stock the product until the edge is wrapped. Bethel Mills, my number one customer wants the product in the worst way because he is having problems with the Windsor One primed pine program holding paint. Dan Kieth at Selectwood who you met at our show last year just put out his spring pricelist that goes out to 15,000 builders, contractors, and architects wants the program but only in the wrapped edge. Ken is there something we can do to expedite this matter. I know in my heart that this is a great product because I put it on my own house, but many people just don't like the looks of the edge. Please talk to Chris and keep me posted on developments that are taking place to bring this product to marketplace.

Thank You
Paul Walsh





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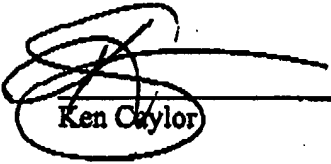
DECLARATION OF KEN CAYLOR UNDER 37 CFR 1.132

I, Ken Caylor, declare as follows:

1. I am employed by Pacific Wood Laminates, Inc. (PWL), Brookings, Oregon, as General Manager of Sales and Marketing.
2. Our new product ("the wrapped edge product"), which is the subject of this patent application, is uniformly straight, smooth, and true. The wrapped edge product is certainly smarter and truer than the old PWL product, which is described in paragraph 3 of the accompanying Declaration of Stanley C. Johnson.
3. On September 3, 2003, Terry Clark, who is a PWL employee responsible for LVL and plywood sales, met with a major homebuilder in the Washington, DC area who has used both our old PWL product (with sanded and filled edges) and the new wrapped product made in accordance with the invention claimed in this patent application. He is no longer selling the old product, and when Terry offered the old product to him at a discount from the new product he was not interested because the appearance of the new product is so much better.
4. Northeastern US markets have been reluctant to take the old PWL product because of problems with its edge. The new product, however, has been successfully sold to two New York distributors who would not accept the old PWL product.

5. Attached as Exhibit A is a May 24, 2002 email from Paul Walsh who is with Holbrook Lumber Company, a PWL customer that distributes PWL products, typically to lumber yards that in turn sell to building contractors. This email was sent to me after I told Mr. Walsh about the wrapped edge product but before PWL was selling the new product and illustrates the resistance of the market in the Northeast US to the old PWL product and the desire for the new product.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of any patent issued from this application.



Ken Caylor

10-20-03
Date

9/03
VENEER
PROFILES
WHITE CITY, OR